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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,812	09/16/2003	Yang-lim Choi	1293.1916	1080
21171	7590	02/02/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER DOAN, TRANG T	
			ART UNIT	PAPER NUMBER
			2131	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/02/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/662,812	<b>Applicant(s)</b> CHOI, YANG-IIM	
	<b>Examiner</b> Trang Doan	<b>Art Unit</b> 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-43 are pending in this application.
2. Acknowledgement is made of application's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 2003-13002, filed on 03/03/2003.

### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1, 31 and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
5. Regarding claims 1 and 31, claims 1 and 31 is directed to a method of managing metadata in a metadata transmission server, which includes the steps of generating, selecting and transmitting. However, at the transmitting step, the metadata get transmitted but does not specify a destination. Therefore the resulted is not a useful, concrete and tangible result.
6. Regarding claim 43, claim 43 recites a machine readable storage storing at least one computer program controlling networked computers according to a process comprising: performing metadata transmission-level or source-level authentication in any directional type data channel environment by partitioning to be transmitted metadata into fragments, and processing a metadata authentication data container comprising at least one of the metadata fragments and metadata fragment

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authentication information using the one metadata fragment and a data format type of the metadata. In the specification of the application, the machine readable storage includes a carrier wave on page 21, paragraph [0067]. Claims that recite nothing but physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Therefore, claim 43 is rejected for reciting non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Cato et al. (US 2003/0120928) (hereinafter Cato).

9. Regarding claim 1, Cato teaches generating a plurality of metadata fragment data by partitioning metadata to be transmitted (Cato: paragraphs [0076, 0078 and 0094]); selecting a predetermined metadata fragment data from among the plurality of metadata fragment data (Cato: paragraphs [0081 and 0090]); generating metadata-related information using the selected metadata fragment data (Cato: see Abstract

section and paragraphs [0091]; and transmitting the selected metadata fragment data and the metadata-related information with data format information indicating a type of the selected metadata fragment data (Cato: see figures [6, 8] and paragraphs [0089, 0091, 0093, 0096 and 0099]).

10. Regarding claims 2, 14, 26, Cato teaches wherein the selected metadata fragment data, the metadata-related information, and the data format information of the selected metadata fragment data are transmitted in a metadata container (Cato: see figure 8 and paragraphs [0096 and 0101]).

11. Regarding claims 3, 15, 27, Cato teaches wherein the data format information indicates whether the selected metadata fragment data has a binary XML format or a text XML format (Cato: see figure 9 and paragraph [0101]).

12. Regarding claims 4, 16, 28, Cato teaches wherein the generated plurality of metadata fragment data are predetermined semantic units of the metadata to be transmitted (Cato: paragraph [0081]).

13. Regarding claims 5, 17 and 29, Cato teaches wherein a metadata authentication level flag specifying a metadata authentication level is further contained in the metadata container (Cato: paragraphs [0103 and 0104]).

14. Regarding claims 6, 18 and 22, Cato teaches wherein the metadata-related information is metadata digest information obtained by substituting the selected metadata fragment data into a unidirectional function (Cato: paragraphs [0108]).

15. Regarding claims 7, 19, 23 and 25, Cato teaches wherein the unidirectional function is a hash function (Cato: paragraphs [0108]).

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16. Regarding claim 8, Cato teaches generating metadata authentication signature information using the metadata-related information and a first encryption key; and inserting the metadata authentication signature information in the metadata container containing the selected metadata fragment data (Cato: paragraphs [0085, 0095 and 0107]).

17. Regarding claim 9, Cato teaches wherein the metadata authentication signature information is obtained by substituting the metadata-related information and the first encryption key into a unidirectional function (Cato: paragraph [0009]).

18. Regarding claim 10, Cato teaches encrypting the first encryption key using a second encryption key; and inserting the encrypted first encryption key into the metadata container containing the selected metadata fragment data (Cato: paragraphs [0085, 0091 and 0135]).

19. Regarding claims 11 and 20, Cato teaches wherein the plurality of metadata fragment data and corresponding metadata-related information are inserted into the metadata container, and each metadata fragment data and the corresponding metadata-related information are connected to each other by pointer information (Cato: paragraphs [0096, 0128 and 0095]).

20. Regarding claims 12 and 30, Cato teaches wherein the plurality of metadata fragment data and corresponding metadata-related information and metadata authentication signature information are inserted into the metadata container, and each metadata fragment data and the corresponding metadata-related information and

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metadata authentication signature information are connected to one another by pointer information (Cato: paragraphs [0095, 0128 and 0141]).

21. Regarding claim 13, Cato teaches reading predetermined metadata fragment data, metadata-related information, and data format information indicating a type of the predetermined metadata fragment data, from the received metadata; generating metadata-related information using the predetermined metadata fragment data and the read data format information; and determining whether the received metadata has been authenticated by comparing the generated metadata-related information with the read metadata-related information (Cato: see Abstract section and paragraphs [0026, 0090, 0095 and 0129-0130]).

22. Regarding claim 21, this claim has limitations that is similar to those of claims 1 and 13, thus it is rejected with the same rationale applied against claims 1 and 13 above.

23. Regarding claim 24, Cato teaches wherein the generated metadata authentication signature information is obtained by substituting the generated metadata-related information and the decrypted first encryption key into a unidirectional function (Cato: paragraphs [0084 and 0095]).

24. Regarding claim 31, this claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

25. Regarding claim 32, this claim has limitations that is similar to those of claims 1 and 13, thus it is rejected with the same rationale applied against claims 1 and 13 above.

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26. Regarding claim 33, this claim has limitations that is similar to those of claims 1 and 13, thus it is rejected with the same rationale applied against claims 1 and 13 above.

27. Regarding claim 34, Cato teaches wherein a format of the metadata authentication container comprises a header section, a metadata fragment section and a metadata fragment authentication information section (Cato: see figure 8 and paragraph [0097]).

28. Regarding claim 35, Cato teaches wherein the metadata authentication container is defined according to a simple object access protocol (SOAP) message (Cato: see figure 9 and paragraph [0101]).

29. Regarding claim 36, Cato teaches wherein the SOAP message comprises a SOAP header comprising the metadata fragment data authentication information and a SOAP body comprising the metadata fragment (Cato: see figure 9 and paragraph [0101]).

30. Regarding claim 37, Cato teaches wherein the programmed computer processor of the metadata transmission server further: includes a plurality of the metadata fragments in the metadata authentication container, allots indexing information to each included metadata fragment, and includes the indexing information in the metadata authentication container; and the metadata receiving client further comprises a data storage storing an index list and predetermined metadata fragments, and the programmed computer processor of the metadata receiving client uses the stored predetermined metadata fragments according to the metadata authentication container



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indexing information and the stored index list to generate the metadata fragment authentication information (Cato: see Abstract section and paragraphs [0079, 0095, 0096 and 0128]).

31. Regarding claim 38, Cato teaches wherein the programmed computer processor of the metadata transmission server further: includes a plurality of the metadata fragments and corresponding metadata fragment authentication information in the metadata authentication container, includes pointer information connecting each included metadata fragment to the corresponding metadata fragment authentication information; and the programmed computer processor of the metadata receiving client determines the transmitted container metadata fragment authentication information of the transmitted metadata fragment based upon the pointer information (Cato: see Abstract section and paragraphs [0026, 0079, 0090, 0095, 0096 and 0128]).

32. Regarding claim 39, Cato teaches wherein the metadata transmission server comprises a right management protection system to maintain the pointer information as a source level authentication of the transmitted metadata (paragraphs [0105 and 0107-0108]).

33. Regarding claim 40, Cato teaches wherein the metadata fragment authentication information is encryption management information regarding encryption of the fragment data (Cato: paragraphs [0085 and 0091]).

34. Regarding claim 41, Cato teaches authenticating a fragment of metadata; associating information about the authentication to the metadata fragment; and authenticating the metadata transmitted based upon the metadata fragment

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authentication information (Cato: see Abstract section and paragraphs [0026, 0090, 0124, 0131 and 0134]).

35. Regarding claim 42, this claim has limitations that is similar to those of claims 1, 13 and 41, thus it is rejected with the same rationale applied against claims 1, 13 and 41 above.

36. Regarding claim 43, Cato teaches a machine readable storage storing at least one computer program controlling networked computers according to a process comprising: performing metadata transmission-level or source-level authentication in any directional type data channel environment by partitioning to be transmitted metadata into fragments, and processing a metadata authentication data container comprising at least one of the metadata fragments and metadata fragment authentication information using the one metadata fragment and a data format type of the metadata (Cato: see Abstract section and figure 8 and paragraphs [0107, 0112 and 0090]).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang Doan whose telephone number is (571) 272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Trang Doan  
Examiner  
Art Unit 2131

T.D.  
01/30/2007

CHRISTOPHER REVAK  
PRIMARY EXAMINER

